

UNITED STATES  
DEPARTMENT OF LABOR  
MINE SAFETY AND HEALTH ADMINISTRATION

COAL MINE SAFETY AND HEALTH

REPORT OF INVESTIGATION

Underground Coal Mine

Fatal Fall of Roof Accident  
June 16, 2004

Carol Dale Contracting Co. (7GP)  
Cumberland Gap, Tennessee

at

Coal Creek  
Bell County Coal Corporation  
Middlesboro, Bell, Kentucky  
ID No. 15-18058

Accident Investigators

Lester Cox, Jr.  
Coal Mine Safety and Health Inspector

Alice Blanton  
Coal Mine Safety and Health Inspector

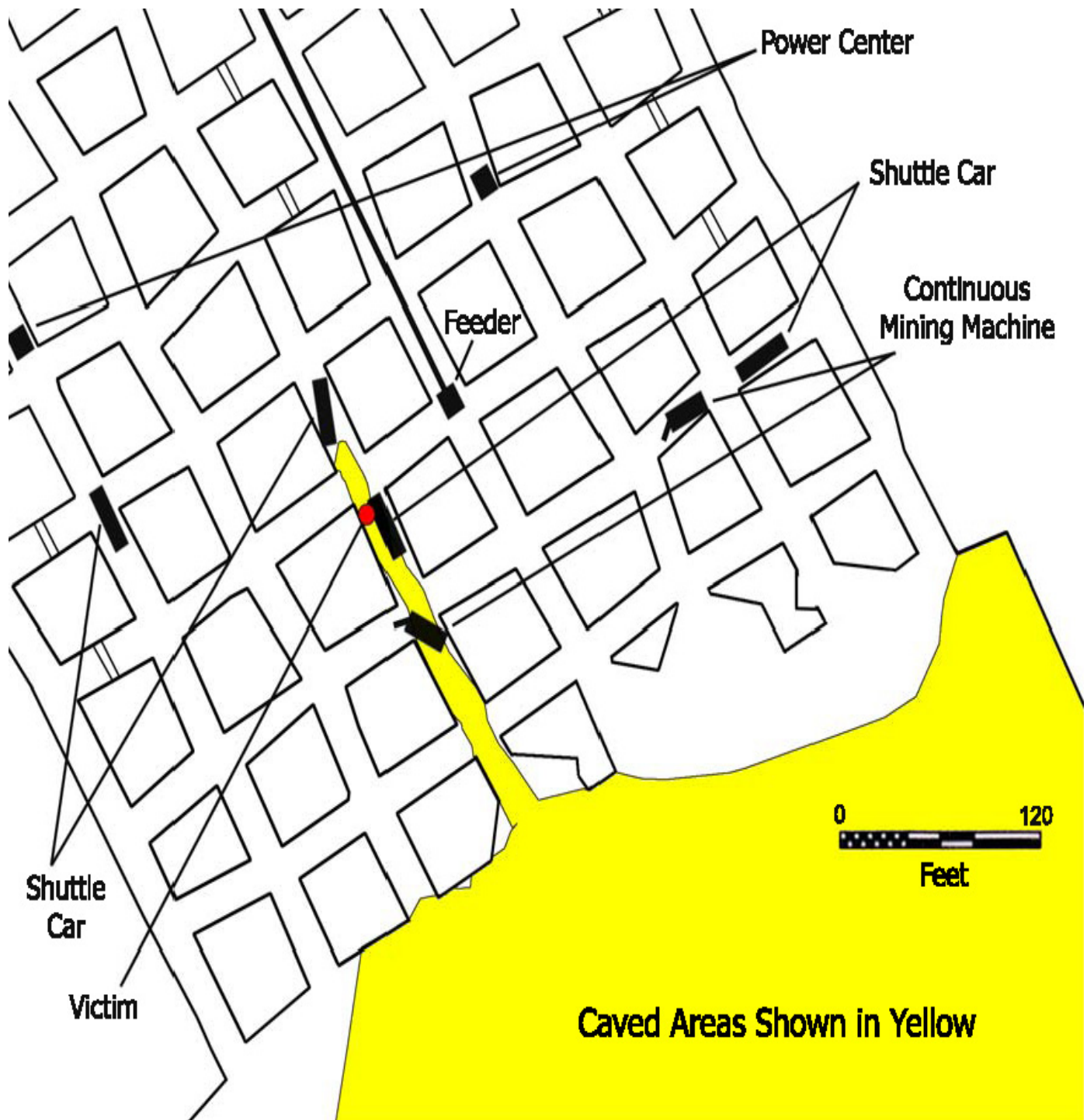
Michael Gauna  
Mining Engineer

Originating Office  
Mine Safety and Health Administration  
District 7  
3837 South U.S. Hwy. 25 E  
Barbourville, Kentucky, 40906  
Joseph W. Pavlovich, District Manager

## TABLE OF CONTENTS

SKETCH OF ACCIDENT SITE .....	ii
OVERVIEW .....	1
GENERAL INFORMATION .....	1
DESCRIPTION OF ACCIDENT .....	2
RECOVERY EFFORTS .....	5
INVESTIGATION OF ACCIDENT .....	5
DISCUSSION .....	6
ROOT CAUSE.....	9
CONCLUSION.....	10
ENFORCEMENT ACTIONS.....	11
APPENDIX A - Persons Participating in the Investigation and Persons Interviewed .....	12
APPENDIX B – Geologic Structure.....	13
APPENDIX C – Lineament Analysis .....	14

# ACCIDENT SITE



## **OVERVIEW**

At 7:30 p.m. on Wednesday, June 16, 2004, Edwin R. Pennington, a 25-year old contract worker was fatally injured at Bell County Coal Corporation's Coal Creek mine in a roof fall accident on the 004/003 pillar section. He was employed by Carol Dale Contracting Company working as a shuttle car operator/timberman with five years and six months of mining experience. The accident occurred while retreat mining was being conducted on the 004/003 mechanized mining units (MMU).

At approximately 7:00 p.m. the 003 MMU continuous mining machine was retreat mining in the pillar block located along the left side of the No. 5 entry. The mine roof started working in the worked out area of the pillar line and the continuous mining machine was backed outby approximately 60 feet in the No. 5 entry. David S. Goins, continuous mining machine operator, Donnie Lemarr, continuous mining machine helper/timberman, and Bill Wilder, Charles Phelps, and Edwin R. Pennington, shuttle car operators, were observing the mine roof working and the timbers taking weight. Pennington had his personal Quasar model VM-L153 digital video camera and was filming the activities that were taking place. At approximately 7:30 p.m. it was observed that the mine roof was working along the No. 5 entry outby the active pillar line and a roof fall was imminent. Goins started to move the continuous mining machine from the No. 5 entry into the connecting crosscut toward the No. 6 entry. Pennington and Lemarr were located in the No. 5 entry, just outby the continuous mining machine. They ran in an outby direction in an attempt to escape. The roof fall began in the worked out area and extended outby in the No. 5 entry for approximately 210 feet, trapping Pennington under the fallen material. After the fall, the workers called out to Pennington, but there was no response. Pennington's body was recovered on Thursday, June 17, 2004, and he was pronounced dead by Deputy Coroner Bill Bisceglia at 3:24 a.m.

The accident occurred because hazardous roof conditions on the working section were not corrected. Two large vertical joints (commonly referred to as hillseams) running parallel to both ribs were present in the No. 5 entry. The parallel joints allowed the roof fall to initiate near the pillar line and propagate outby in the No. 5 entry.

## **GENERAL INFORMATION**

Pennington was employed by Carol Dale Contracting Company. Carol Dale Contracting Company provides employment services, including temporary employees, to Bell County Coal Corporation and other coal companies. While at this mine, Pennington worked under the direct supervision of the mine management of Bell County Coal Corporation. The principal officer of Carol Dale Contracting Company is Gary Slater.

Bell County Coal Corporation's Coal Creek mine is located near Middlesboro, Bell County, Kentucky. The mine is accessed by five drift openings into the 60-inch thick Buckeye Springs coal seam and has been in a producing status since October 19, 1998. Coal is produced on the day and second shift and occasionally on the maintenance or third shift. The mine produces 4,000 tons of raw coal daily using the room and pillar

method. The mine employs 42 underground and two surface workers. The mine also employs four surface and two underground contract workers.

Coal is extracted with remote-controlled continuous mining machines equipped with wet bed scrubbers utilizing a 32-foot extended cut plan on development. Coal is mined on the 004/003 MMU super-section. The 004 MMU mines the Nos. 1 through 4 entries and the 003 MMU mines the Nos. 5 through 8 entries. The maximum allowable entry width is 20 feet. Two different pillaring sequences are approved, dependent on which MMU begins retreat mining on a new row of pillar blocks. In both cases, the pillar sequences begin in the center of the panel and progress toward the outside entries. Prior to this accident, the last reported roof fall occurred on May 1, 2002.

Shuttle cars are used to transport coal to the section belt conveyor feeder. Coal is transported to the surface by a series of belt conveyor flights. The mine is ventilated with a single main mine fan, utilizing a blowing system. The mine liberates negligible methane.

The principal officers for the mine at the time of the accident were:

Charles G. Snavely.....	President
Wilburn Howard .....	Safety Director
Donald Wright .....	Mine Superintendent
Jim Murray .....	General Mine Foreman

Prior to the accident, the Mine Safety and Health Administration (MSHA) completed the last regular safety and health inspection on March 10, 2004. There was an on-going regular inspection being conducted at the time of the accident. The Non-Fatal Days Lost (NFDL) injury incidence rate for the mine in 2003 was 14.43 compared to a National NFDL incidence rate of 6.30 for 2003.

## **DESCRIPTION OF ACCIDENT**

On June 16, 2003, at approximately 3:00 p.m., the second shift crew, under the supervision of Jerry Belcher, section foreman, entered the mine via a battery-powered track-mounted self-propelled personnel carrier (mantrip) and traveled to the 004/003 MMU super-section. While on the mantrip, Edwin R. Pennington, contract laborer, showed David Hurley, repairman, a camcorder that he was carrying in his dinner bucket. Pennington asked Hurley if he thought mine management would object to him videotaping. Hurley told Pennington that he did not think management would approve.

After arriving on the section, Belcher traveled across the pillar line to conduct an examination of the section. He observed hillseams in the No. 4 and No. 5 entries. The hillseam in the No. 5 entry was the worst of the two. It was located on the left side of the No. 5 entry and was two crosscuts long and widened out in the crosscut outby the active pillar row. The 003 MMU (right side) began mining in the No. 8 entry, while the 004 MMU (left side) started mining a new row of pillar blocks in the No. 4 entry. While

hauling coal from the No. 8 entry, a wheel unit broke on one of the 003 MMU shuttle cars, which Pennington was operating. The shuttle car was moved to a location in the No. 5 entry, three crosscuts outby the pillar line. Belcher assigned Hurley to fix Pennington's shuttle car.

At this time, Charles Phelps, shuttle car operator on the 004 MMU, informed Belcher that employees had some questions about the roof conditions in the No. 4 entry. Belcher walked to the No. 4 entry and examined the roof conditions. He checked test holes in the intersection immediately outby the pillar line in the No. 4 entry and determined that a separation was present at 10 inches above the roof line. He also noticed water was dripping from a hillseam in the roof. Belcher instructed the crew to withdraw from the No. 4 entry and resume mining in the No. 3 entry. Belcher then walked back to the disabled shuttle car and reassigned Pennington to help James Ford, scoop operator/timberman, install timbers for second mining on the 003 MMU. Pennington brought his dinner bucket, which still contained the camcorder, to the No. 6 entry, where he met Ford. Pennington informed Ford that he didn't want the foreman to find out about the camcorder, because he wanted to record a roof fall. Meanwhile, Belcher walked to the 004 MMU and assigned Phelps to haul coal from the 003 MMU to replace Pennington's disabled shuttle car.

After retreat mining was completed in the No. 8 entry, Scott Goins, 003 MMU continuous mining machine operator, trammed the machine to the No. 5 entry. Belcher observed the first cut from this entry, which was mined from the left pillar. After this cut was completed, Belcher left the area and returned to the 004 MMU. Goins backed the continuous mining machine outby the cut and replaced miner bits while Donnie Lemarr, miner helper/timberman, set turn posts for the next cut.

Goins then mined a cut to the right of No. 5 entry. During this cut, as a safety precaution, Lemarr stated that he had inserted three wooden cap wedges in a roof crack in the crosscut to the left of No. 5 entry, to monitor roof movement. Pennington started videotaping the working place at 6:48 p.m., as the continuous mining machine was backed outby the cut and other crewmembers prepared to install turn posts for the next cut to the left. At 6:54 p.m., Pennington videotaped broken timbers at the pillar line, capturing audio of one of the crewmembers identifying three "slips"(vertical joints) and commented that "It will be like that one last night. It will fall out in the middle." Pennington said "right up to the breakers." The other miner continued, "I'd say it will fall a pretty good ways back through here, if it don't go through the intersection, because them slips run up through that intersection." (Statements obtained during interviews failed to confirm that a roof fall as described above had occurred on the previous night.) At 6:55 p.m., Pennington paused recording.

After the turn posts were set, Goins started mining the next cut to the left of the No. 5 entry. At 7:05 p.m., Pennington resumed taping while a shuttle car was loaded. When the cut was mined approximately 20 feet deep, Goins heard timbers popping at the pillar line in the No. 5 entry. At 7:13 p.m., he backed the continuous mining machine out of the place, parking it approximately 60 feet outby the cut in the No. 5 entry. Phelps

parked his shuttle car just outby the continuous mining machine. Bill Wilder parked his shuttle car in the No. 6 entry. Pennington, who was located along the front, right side of the continuous mining machine, then videotaped small rocks and water dripping from the vertical joint along the right rib, as Goins, Lemarr, Phelps, and Wilder watched and commented on the changing roof conditions. At 7:18 p.m., Pennington commented “that’s dribbling all around through there; that whole intersection will come in.” Lamarr commented about a crack and used a hammer to sound the mine roof just inby Pennington’s location. At 7:21 p.m., as roof conditions continued to deteriorate, the miners, retreated outby to the intersection along the right side of the continuous mining machine. While at this location, Pennington captured video of small rock dribbling beside the machine over his previous position. In the video a large hillseam was visible in the mine roof, paralleling the right rib line, extending inby from Pennington’s position.

By 7:30 p.m., the roof appeared sagged along the widened hillseam in the No. 5 entry. Goins and Wilder were in the crosscut to the right of the continuous mining machine. Lemarr and Pennington were in the No. 5 entry, at the intersection nearest to the continuous mining machine. Phelps was in his shuttle car, immediately outby Lemarr and Pennington. Phelps stated that the roof was dribbling at his location. Goins said they needed to move over to the No. 6 entry and prepared to move the continuous mining machine. At 7:31 p.m., Phelps started moving his shuttle car outby as Pennington stopped videotaping.

Phelps stated in his interview that he parked his shuttle car approximately 60 feet outby the continuous mining machine. Phelps exited his shuttle car and noticed the roof dribbling above his head. He warned the other miners that it looked like it was going to fall back to his location. Lemarr stated in his interview that he also noticed the roof dribbling and heard Pennington say, “It’s going to come.” Lemarr told Pennington, “Let’s go.” Lemarr, Phelps and Pennington started running outby in the No. 5 entry.

Goins and Wilder ran through the crosscut adjacent to the continuous mining machine, toward the No. 6 entry. Phelps and Lemarr ran into the next outby crosscut, just outby the shuttle car, toward the No. 6 entry. As Pennington neared the intersection, along the outby end of the shuttle car, the roof collapsed onto him, causing fatal injuries. The roof fall extended from the pillared area outby approximately 210 feet, also covering the continuous mining machine and the shuttle car.

Goins and Wilder traveled one crosscut outby in the No. 6 entry where they met Phelps and Lemarr. Goins asked if everyone was “okay” and observed that Pennington was not present. They called out for Pennington, but heard no response. Goins traveled to the belt feeder where he met Belcher and informed him of the roof fall and that Pennington was missing. A thorough search of the approaches to the roof fall was made and it was determined that Pennington had not escaped.

Belcher notified the surface personnel of the accident and instructed his crew to timber the left and right crosscuts adjacent to the roof fall. Surface personnel notified company officials, Wilburn Howard, safety director, and Donnie Wright, mine superintendent. Howard notified Jim Langley, Barbourville Field Office supervisor, at approximately 8:00 p.m.

## **RECOVERY EFFORTS**

John Pyles, MSHA Assistant District 7 Manager for Enforcement Programs, was notified of the accident at approximately 8:05 p.m., on June 16, 2004, by Jim Langley, Field Office Supervisor. Foster Brock, Coal Mine Safety and Health Inspector, (Electrical) was notified by Donnie Wright, mine superintendent, and was the first MSHA inspector to arrive at the mine site. Pyles notified Joe Pavlovich, MSHA District 7 Manager, Charles Grace, Assistant District 7 Manager for Technical Programs, and the necessary personnel to respond to the accident.

Grace notified MSHA headquarters in Arlington, Virginia and requested Educational Field Services, and Technical Support be notified. Immediately upon his arrival at the mine site Brock verbally issued the 103(k) Order at approximately 8:35 p.m.

Marvin Hoskins, and Dannie Lewis, Coal Mine Safety and Health Inspectors; Roger Dingess, Coal Mine Safety and Health Inspector (Roof Control Specialist), Jim Langley and William Johnson, Barbourville Field Office Supervisors, along with Pavlovich and Pyles traveled to the mine site. Hoskins served the 103(k) Order in writing upon his arrival and obtained preliminary statements from witnesses.

When MSHA and Kentucky Office of Mine Safety and Licensing (OMSL) personnel arrived on the section, the crew members informed them of the approximate location of the victim. A recovery team was assembled consisting of MSHA, OMSL and company personnel. Based on observed mine conditions, a recovery plan was jointly agreed upon and efforts were started to recover the victim. Additional timbers and cribs were installed in order for the recovery operation to begin. The victim was recovered at approximately 2:50 a.m. The victim was transported to the surface and pronounced dead by Deputy Coroner Bill Bisceglia at 3:24 a.m.

## **INVESTIGATION OF THE ACCIDENT**

Investigation team members Daniel L. Johnson, Harlan Field Office Supervisor, Lester Cox, Jr. and Alice Blanton, Coal Mine Safety and Health Inspectors (Accident Investigators) traveled to the mine site on June 17, 2004, to initiate the formal accident investigation. Michael Gauna, Mining Engineer, from MSHA's Triadelphia Safety and Health Technology Center, and Dennis Cotton, Mining Engineer from MSHA's District 7 took additional photographs, measurements, and mapped the 004/003 super-section. Other documents and relevant information were gathered by the investigators. A spot



inspection was conducted concurrently with the investigation to address enforcement issues that did not contribute to the accident.

The investigation was conducted in cooperation with OMSL. Other participants included the miners and management personnel from Bell County Coal. A list of those persons who participated in the investigation is contained in Appendix A of this report.

On June 18 and 21, 2004, persons having knowledge of the facts regarding the accident were interviewed by MSHA and OMSL. Other MSHA representatives attending the interviewing were; Charles Thomas, Roof Control Specialist, Division of Safety, and Mary Beth Bernui, Attorney, Office of the Solicitor. A list of those persons who participated in the interviews is contained in Appendix A.

Tom Morgan, Educational Field Services, conducted a review of training records provided by Bell County Coal and Carol Dale Contracting Company. The records indicated that the victim had received the required training in accordance with Title 30 CFR, Part 48.

## **DISCUSSION**

### **Geologic Conditions**

In the vicinity of the mining units, the immediate roof consisted of gray shale or gray sandy shale of variable thickness that extends 50+ feet above the Buckeye Springs coal seam. The Buckeye Springs coal seam height is approximately three feet with a typical mining height of approximately four feet. Overburden in the current mining panel ranges from approximately 200 to 650 feet. No undermining exists under the current panel. Overmining exists in the overlying Poplar Lick coal seam from an abandoned “pre-law” operation with roughly 200 feet of interburden separating the two coal seams and was determined not to be a contributory factor to the accident.

The roof fall ranged from four to six-plus feet in thickness, 12 to 20 feet in width, and was approximately 210 feet in length from the pillar line. The entire roof fall was bounded on the east (right) by a near vertical joint system (hillseam) along the rib line of the No. 5 entry and the fall was bounded on the west (left) by a parallel near vertical joint system (hillseam) along the opposite rib line of the No. 5 entry. The joints trend at N30°W to N33°W, near parallel to the No. 5 entry.

Other near vertical open joints existed on the section. In the other entries in the face area, a primary joint system, similar in orientation to the system controlling the roof fall, ranged from N28°W to N38°W in orientation. A less pronounced, secondary joint system also existed, oriented N12°E to N57°E. This secondary joint system was only evident in the No. 5 and No. 6 entries two to three crosscuts outby the pillar line. The only role the secondary joint system played in the roof fall was that it allowed the fall to terminate on one of its N27°E joint planes. See Appendix B.

A lineament analysis for the Coal Creek mine was conducted by the Technical Support's Roof Control Division. The image used for this analysis was a Digital Elevation Model (DEM) of the Fork Ridge, Tennessee, seven and one-half minute U.S.G.S. topographic quadrangles. Previous work has indicated that prominently aligned topographic features, can represent structural geologic zones of weakness such as faults and fractures. The lineament analysis for the Coal Creek mine identified 13 lineaments, which were plotted (See Appendix C). One lineament in particular, number 5NE, projects almost exactly across the pillar line of the section on which the fatal accident occurred.

### **Roof Control Practices**

The accident site was developed in mid May, 2004. At the time of the accident, the unit was engaged in retreat pillar extraction. An eight-entry panel was second mined 1,180 feet from the point of deepest penetration. The coal pillars surrounding the accident site were nominally 50-foot x 50-foot with an overburden depth of 550 feet. The No. 5 entry width immediately outby the roof fall was 20 feet.

The mine roof was supported with 5/8-inch x 48-inch, grade 60, fully grouted rebar on four feet x four feet spacing. Metal straps, six inches x four feet, 16 gauge, were installed across (perpendicular to) hillseams within the bolt rows which were evident along the perimeter of the fall. The roof fall thickness included the four feet roof bolts with the overlying bedding plane failure at or slightly (two feet plus) beyond the bolt length. Consequently, no roof bolt failure was observed at the accident site.

The currently approved roof control plan allowed for metal straps *to be used for the sole purpose of controlling draw rock or small isolated pots*. The plan requires that *crossbars* be used when pots, slips, horsebacks or hillseams are encountered. *Steel channels* may be used in lieu of wooden crossbars in areas where subnormal roof conditions are encountered and entries will be *narrowed to 18 feet or less* by means of setting posts and/or cribs on not more than five feet centers. Additional safety precautions for retreat mining (pillaring) contained in the approved plan provide that *a roof evaluation shall be made when entering a previously mined area for the purpose of pillar recovery. When inadequate roof support is encountered, the necessary corrective action shall be taken.*

### **Method of Mining**

The operators approved pillar recovery plan extraction sequence begins in the center entries of the panel and progresses to the outer entries. The pillar blocks are mined in the 'christmas-tree' fashion beginning with the left cut first. No evidence of excessive pillar loading or cutter roof failure (stress related damage) was observed in the face areas. The No. 1, No. 2, and No. 3 entries and surrounding region, where overmining exists in the Poplar Lick coal seam, also showed no evidence of excessive pillar loading.

A parallel joint system (hillseams) was present in the No. 5 entry and extended into the worked out area as determined by visual examination. This parallel joint system initiated the fall near the pillar line and then allowed the fall to propagate along the No. 5 entry

outby the mining area. The fall terminated on a N27°E joint plane 16 feet outby spad number 3862. Inadequately supported roof in an entry containing two parallel joints (hillseams) was a contributing factor to the fatal roof fall. It appears that regardless of the retreat mining sequence, the normal progression of the caving roof in the worked out area and the associated stress transfer would have impacted the entry containing the two parallel joints, resulting in the roof fall.

### **Workplace Examinations**

Workplace examinations are required in any area that any person is scheduled to work or travel underground. Examinations of working sections shall include tests of roof, face and rib conditions. Workplace examinations of the roof conditions on the 004/003 MMU were deficient in that they failed to correct identified hazardous roof conditions.

Hillseams and other joints across the section were numerous and extensive in nature. An adequate examination by the preshift examiner and/or the on-shift examiner would have recognized these conditions as a hazard for work scheduled in the area, which included retreating the pillar line toward these joints. During interviews Belcher stated that after arriving on the section he conducted a safety check. He observed hillseams in the No. 4 and No. 5 entries, and stated, the hillseam in the No. 5 entry was the “worst of the two” He further stated, that the hillseam was located on the left side of No. 5 entry and was two crosscuts long and widened out in the crosscut outby the active pillar row. The miners, during interviews stated that they also recognized the hazardous conditions as evidenced during their discussion and observation of the hillseam, water and small rocks falling from the roof. Identification of these conditions during the examination should have prompted the abandonment of the area that was mined.

### **Human Factors**

When Pennington was recovered, the Quasar Model VM-L153 Digital Video Camera (camcorder) was found near him. During the interview process it was disclosed by Hurley and Ford that he had intentions of video taping a roof fall and didn’t want the foreman to find out about the camcorder. Hurley and Ford did not inform the section foreman of this fact. During the investigation it could not be determined that Belcher was aware of the camcorder and the video taping. A viewable videotape was obtained from the camcorder. The videotape starts at 6:48:10 p.m., June 16, 2004, and stops at 7:31:30 p.m., June 16, 2004. Breaks in time exist during the recording of the videotape.

A postmortem examination was performed by the Kentucky Medical Examiners Office. The Gross Anatomic Description included a detailed analysis of the victim’s clothing. This disclosed that a partial pack of “Marlboro” brand cigarettes and two cigarette type lighters were present in Pennington’s right front pants pocket. The results of the toxicology laboratory report revealed that a presumptive presence of cannabinoids and 2.3 mg/l of methadone were present in Pennington’s system.

## **ROOT CAUSE ANALYSIS**

An analysis was conducted to identify the most basic causes of the accident that were correctable through reasonable management controls. During the analysis, causal factors were identified that, if eliminated, would have either prevented the accident or mitigated its consequences.

Listed below are causal factors identified during the analysis and their corresponding corrective actions implemented to prevent a recurrence of the accident:

1. *Causal Factor:* The standards, policies, and administrative controls in use at the mine did not ensure that the roof was supported or adequately controlled to protect persons from the hazards associated with falls of roof. Hillseams were present in various locations on the 004/003 MMU and extended outby (See Appendix B). During initial development, these hillseams were present but were not supported according to the operators approved roof control plan.

*Corrective Action:* The operator ceased retreat mining. A revision of the approved roof control should address the use of additional and/or additional types of support, in addition to those currently detailed in the minimum provisions of the approved roof control plan, and/or the exclusion of certain areas from pillar extraction. Mine management should assure that their approved plans are being continually complied with. The operator should implement a policy to conduct continuing education in risk/hazard assessment and areas concerning mine plans and changing conditions.

2. *Causal Factor:* The preshift examination of roof conditions on the 004/003 MMU was deficient in that the examiner for the oncoming second shift failed to recognize the presence of hillseams as a hazardous roof condition so that corrective measures could be initiated. The roof cracks across the section were numerous and extensive in nature. A review of the pre-shift examination record books did not contain any comments or indication of the presence of any adverse roof conditions. An adequate examination would have recognized the hillseams as a hazardous condition for the pillar extraction scheduled in the area. Identification of these conditions during the examination should have prompted the installation of additional roof support or abandonment of the area that was being mined.

*Corrective Action:* The certified persons making the examinations should properly identify and record all hazardous conditions and make the appropriate corrections. Mine management should develop and follow procedures to identify and correct any and all hazardous conditions.

3. *Causal Factor:* The examinations conducted during the second shift, prior to the accident, of the roof conditions on the 004/003 MMU were deficient in that observed hazardous roof conditions were not corrected. The hillseams across the section were numerous and extensive in nature. The section foreman

acknowledged the presence of hillseams, but took no corrective action, to eliminate these hazardous roof conditions. Identification of these conditions during the examination should have prompted the installation of additional roof support or abandonment of the area that was being mined.

*Corrective Action:* The certified persons making the examinations should properly identify, make the appropriate corrections, and record all hazardous conditions. Mine management should develop and follow procedures to identify and correct any and all hazardous conditions

## **CONCLUSION**

The accident occurred because hazardous roof conditions on the working section were not corrected. Two large vertical joints (commonly referred to as hillseams) running parallel to both ribs were present in the No.5 entry. The parallel joints allowed the roof fall to initiate near the pillar line and propagate outby in the No. 5 entry.

Approved By:

---

Joseph W. Pavlovich  
District Manager for District 7

---

Date

## **ENFORCEMENT ACTIONS**

1. A 103 (k) Order, No. 7543357 was issued to Bell County Coal Corporation to ensure the safety of all persons until an investigation was completed and the area deemed safe.
2. A 104(d) (1) Citation, S&S, High negligence, No. 7538674, was issued to Bell County Coal for a violation of 75.220(a)(1): An investigation of the fatal fall of roof accident which occurred on June 16, 2004, determined that the approved Roof Control Plan, dated June 6, 2001, was not being complied with in the No. 5 entry on the 003 MMU. The roof fall ranged from 4 to 6+ feet in thickness, 12 to 20 feet in width, and approximately 210 feet in length from the pillar gob line. Parallel hillseams (vertical open joints) were present in the roof of the No. 5 entry that was supported during development with thin steel straps. The approved plan required that hillseams be supported with steel channels and the entry width be narrowed to 18 feet or less. Other hillseams were supported with thin steel straps which were present at various locations on the 004/003 MMU super-section. Additional safety precautions for retreat mining (pillaring) as stipulated in the plan also requires that a roof evaluation shall be made when entering a previously mined area for the purpose of pillar recovery when inadequate roof support is encountered the necessary corrective action shall be taken.
3. A 104(a) Citation , S&S, Moderate negligence, No. 7538675, was issued to Bell County Coal Corporation for a violation of 75.360(b)(3): An investigation of the fatal fall of roof accident, which occurred on June 16, 2004, determined that the pre-shift examiner failed to properly examine the 004/003 MMU super-section. Hillseams (vertical open joints) were present at various locations on the 004/003 MMU that were not adequately supported as required in the approved Roof Control Plan, dated June 6, 2001. The extensiveness of these hillseams should have prompted identification of these as being hazardous roof conditions and corrective actions should have been taken. Due to the hazards associated with mining and specifically with pillar mining. Measures should have been implemented to adequately support the mine roof to correct the hazardous conditions or the area should have been dangered off and the section pulled back. The pre-shift record book did not contain any entries identifying the roof cracks or adverse roof conditions.
4. A 104(a) Citation, S&S, Moderate negligence, No. 7538676, was issued to Bell County Coal Corporation for a violation of 75.363(a): An investigation of the fatal fall of roof accident, which occurred on June 16, 2004, determined that a hazardous roof condition identified by the second shift section foreman was not posted with a conspicuous danger sign where anyone entering the area would pass and the hazardous condition was not corrected. The section foreman stated during an interview that while he was making his safety checks of the 004/003 MMU, he observed hillseams in the No. 4 and No. 5 entries outby the active pillar line. He stated he observed one hillseam in the No. 5 entry, located on the left side, two crosscuts long, and which widened out in the crosscut outby the active pillar row.

**Appendix A**  
**Persons Participating in the Investigation**

**Bell County Coal Corporation**

Darryl Bailey.....	Section Foreman, Day Shift
Pearl Farler.....	Safety Manager
Wilbur Howard .....	Safety Director
Jim Murray.....	Mine Foreman
Donnie Wright .....	Superintendent

**Kentucky Office of Mine Safety and Licensing**

Sherril Fouts.....	Electrical Inspector
Johnny Greene .....	Deputy Chief Accident Investigator
Daven Hoskins .....	Mine Inspector
George Johnson.....	Inspector Principle
Tracy Stumbo.....	Chief Accident Investigator
Ralph Woods.....	Mine Inspector

**Mine Safety and Health Administration**

Alice Blanton .....	CMS&H Inspector/Accident Investigator
Foster Brock.....	CMS&H Inspector/Electrical
Dennis Cotton .....	Mining Engineer
Lester Cox, Jr. ....	CMS&H Inspector/Accident Investigator
Michael Gauna.....	Mining Engineer
Marvin Hoskins.....	CMS&H Inspector
Daniel L. Johnson .....	CMS&H Inspector/Supervisor
Tom Morgan .....	Training Specialist

**List of Persons Interviewed**

Darryl Bailey.....	Second Foreman, Day Shift
Jerry Belcher .....	Section Foreman, 2 <sup>nd</sup> Shift
James Ford .....	Scoop Operator/Timberman, 003 MMU
David Scott Goins .....	Continuous Mining Machine Operator, 003 MMU
David Hurley.....	Electrician/Mechanic, 003 MMU
Donnie Lemarr .....	Roof Bolter Operator/Timberman, 003 MMU
Charles Phelps.....	Shuttle Car Operator, 004/003 MMU
Larry Ray Smith.....	Continuous Mining Machine Operator, 004 MMU, 2 <sup>nd</sup> Shift
Bill Wilder .....	Shuttle Car Operator, 003 MMU

## Appendix B

